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REMARKS

This response is intended as a full and complete response to the non-final Office Action mailed March 2, 2005. In the Office Action, the Examiner notes that claims 1-29 are pending of which claims 10-29 are subject to restriction and/or election requirement and claims 1-9 stand rejected.

By this response, the Applicants have amended claims 1, 34, and 9, cancelled claims 2, 5-8, and 10-29, and added new claims 30-32.

In view of both the amendments presented above and the following discussion, the Applicants submit that none of the claims now pending in the application are indefinite or obvious under the respective provisions of 35 U.S.C. §112 and 103.

It is to be understood that the Applicants, by amending the claims, do not acquiesce to the Examiner's characterizations of the art of record or to the Applicants' subject matter recited in the pending claims. Further, the Applicants are not acquiescing to the Examiner's statements as to the applicability of the art of record to the pending claims by filing the instant responsive amendments.

ELECTION OF CLAIMS

The Applicants confirm the election of claims 1-9. Claims 10-27 have been cancelled without prejudice. The Applicants reserve the right to file continuing and/or divisional applications to prosecute the non-elected subject matter.

REJECTIONS**35 U.S.C. §112****Claim 7**

The Examiner has rejected claim 7 under 35 U.S.C. §112, paragraph 2, for failing to particularly point out and distinctly claim the subject matter which the Applicants regard as the invention. The Applicants have cancelled claim 7. As such, rejection of claim 7 is now moot. In amended claims, the Applicants used the term "thermooptic heater" suggested by the Examiner.

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35 U.S.C. §103(a)**Claims 1-9**

The Examiner has rejected claims 1-9 under 35 U.S.C. §103(a) as being unpatentable over Saida et al. (US 2003/0031406, hereinafter "Saida"). In response, the Applicants amended claims 1, 3-4, and 9 to more clearly recite aspects of the invention. Claims 2 and 5-8 have been cancelled without prejudice.

Independent claim 1, as amended, recites limitations not taught, shown or suggested by Saida. Saida teaches an optical filter splitting or combining optical wavelengths according to wavelengths, i.e., interleaver. The filter comprises an input X-branch coupler 12, two parallel groups of optical delay lines 15, and an output X-branch coupler 12 coupler 17. Each group of optical delay lines is coupled to a respective output of the coupler 12 and to a respective input of the coupler 17 by couplers 13 and 16 and comprises two parallel branches. In one embodiment, each branch includes a time delay line 15 (FIG. 4; paragraphs [0034-0036]). In another embodiment, the branch also includes an thin-film heater 19 or 20 (FIG. 6; paragraph [0044]). As such, Saida teaches the optical filter that has a) input and output X-branch couplers and b) four parallel paths for optical signals.

However, Saida does not teach, show or suggest an interleaver comprising an input Y-branch coupler and connected in series two multi-sectional couplers, which are separated from each other and the Y-branch coupler using phase shifters, as recited in claim 1.

Support for the amendment can be found in Specification at FIG. 1 and page 5, lines 13-32.

The Examiner's attention is directed to the fact that, in the Saida's optical filter, the couplers 13a and 13b and couplers 16a and 16b are connected in parallel.

In contrast, Applicants' interleaver comprises only two parallel paths for optical signals and does not include an output coupler. Moreover, the multi-

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sectional couplers are connected in series, whereas in the Saida's optical filter the couplers 13a and 13b, and 16a and 16b are connected in parallel. As such, Saida does not teach Applicants' invention recited in claim 1.

The test under 35 U.S.C. §103 is not whether an improvement or a use set forth in a patent would have been obvious or non-obvious; rather the test is whether the claimed invention, considered as a whole, would have been obvious. Jones v. Hardy, 110 USPQ 1021, 1024 (Fed. Cir. 1984) (emphasis added). Moreover, the invention as a whole is not restricted to the specific subject matter claimed, but also embraces its properties and the problem it solves. In re Wright, 6 USPQ 2d 1959, 1961 (Fed. Cir. 1988) (emphasis added). The Saida reference fails to teach or suggest the Applicants' invention as a whole.

As such, the Applicants submit that independent claim 1 is not obvious and fully satisfies the requirements of 35 U.S.C. §103 and is patentable thereunder. Therefore, the Applicant respectfully requests that the Examiner's rejection of claim 1 be withdrawn.

Furthermore, claims 2-9 depend, either directly or indirectly, from independent claim 1 and recite additional limitations thereof. As such, and at least for the same reasons as discussed above, the Applicants submit that dependent claims 2-9 are also not obvious and fully satisfy the requirements of 35 U.S.C. §103 and are patentable thereunder. Therefore, the Applicants respectfully request that the Examiner's rejection of claims 2-9 be withdrawn.

NEW CLAIMS

New claims 30-32 have been added. The Applicants believe that claims 30-32 are fully supported by the specification and no new matter has been entered. Claims 30-32 recite limitations patentable over the art of record and depends, directly or indirectly, from claim 1, which is allowable for the reasons discuss above. Thus, the Applicants respectfully request allowance of claims 30-32.

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THE SECONDARY REFERENCES

The secondary references made of record are noted. However, it is believed that the secondary references are no more pertinent to the Applicants' disclosure than the primary reference cited in the office action. Therefore, the Applicants believe that a detailed discussion of the secondary references is not necessary for a full and complete response to this Office Action.

CONCLUSION

Thus, the Applicants submit that none of the claims presently in the application are indefinite or obvious under the respective provisions of 35 U.S.C. §112 and §103. Accordingly, both reconsideration of this application and its swift passage to issue are earnestly solicited.

If, however, the Examiner believes that there are any unresolved issues requiring adverse final action in any of the claims now pending in the application, it is requested that the Examiner telephone Eamon J. Wall at (732) 530-9404 so that appropriate arrangements can be made for resolving such issues as expeditiously as possible.

Respectfully submitted,

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